

What is claimed is:

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1. An article of functional clothing, comprising:
a garment;
electrically conductive fibers integrated into the garment in a predetermined pattern to form an induction loop; and
an activator unit arranged at a predetermined location on the induction loop to establish electrical connection and activate the induction loop, and to provide an interface to at least one portable electronic device.
2. The article of functional clothing as claimed in claim 1, wherein the garment corresponds to one of a jacket, a vest, a shirt and a pant.
3. The article of functional clothing as claimed in claim 1, wherein the electrically conductive fibers are sewed into the garment in the predetermined pattern to form the induction loop.
4. The article of functional clothing as claimed in claim 1, wherein the electrically conductive fibers correspond to conductive yarns which are metallic coated yarns, yarns that incorporate non-conductive fibers with metallic fibers, or yarns that are showered with metallic pieces.
5. The article of functional clothing as claimed in claim 1, wherein the electrically conductive fibers each comprises a central metallic core composed of an electrically conductive material, and an insulative overcoat composed of an insulative material.

6. The article of functional clothing as claimed in claim 5, wherein the electrically conductive material contains one of a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material and any other fiber material that provides sufficient current to induce induction coupling between the garment and a hearing device.

7. The article of functional clothing as claimed in claim 1, wherein the electrically conductive fibers contain a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material or any other fiber material that provides sufficient current to create an electromagnetic field.

8. The article of functional clothing as claimed in claim 1, wherein the activator unit comprises a power source; a microphone; required processor electronics, and one or more interfaces which provide appropriate connection to close the induction loop and to the at least one portable electronic device, via either a transmission wire/fiber or a wireless transmission.

9. The article of functional clothing as claimed in claim 8, wherein the activator unit includes a fastening device, such as a metallic button, a pin, a snap, a hook, and a zipper with conductive teeth for data/electric connection, arranged to close the induction loop.

10. The article of functional clothing as claimed in claim 1, wherein the garment includes a removable pocket which has required fiber/wire connectors utilized to establish connection between the activator unit and the at least portable electronic device.

11. The article of functional clothing as claimed in claim 1, wherein the activator unit includes a zipper with conductive teeth for data/electric connection utilized to establish electrical connection between the conductive fibers forming the induction loop and to provide an interface to the at least one portable electronic device.

12. The article of functional clothing as claimed in claim 1, wherein the at least portable electronic device includes a mobile phone, a pager, a personal digital assistant (PDA), a tape cassette player, a compact-disc (CD) player, a MD player, a DAT player, a mini-television set, a radio, a clock/alarm, or some other similar mobile devices.

13. A process of fabricating smart clothing, comprising:
integrating electrically conductive fibers into a garment in a predetermined pattern to form an induction loop; and
forming an activator unit at a predetermined location on the induction loop to establish electrical connection and activate the induction loop, and to provide an interface to at least one portable electronic device.

14. The process as claimed in claim 13, wherein the garment corresponds to one of a jacket, a vest, a shirt and a pant, wherein the electrically

conductive fibers are sewed into the garment in the predetermined pattern to form the induction loop.

15. The process as claimed in claim 13, wherein the electrically conductive fibers each comprises a central metallic core composed of an electrically conductive material, and an insulative overcoat composed of an insulative material.

16. The process as claimed in claim 15, wherein the electrically conductive material contains one of a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material, showered pieces of metallic material and any other fiber material that provides sufficient current to induce induction coupling between the garment and a hearing device.

17. The process as claimed in claim 13, wherein the electrically conductive fibers contain a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material, pieces of metallic material or any other fiber material that provides sufficient current to create an electromagnetic field.

18. The process as claimed in claim 13, wherein the activator unit comprises a power source; a microphone; required processor electronics, and one or more interfaces which provide appropriate connection to close the induction loop and to the at least one portable electronic device, via either a transmission wire/fiber or a wireless transmission.

19. The process as claimed in claim 13, wherein the activator unit includes a fastening device, such as a metallic button, a pin, a snap, a hook, and a zipper with conductive teeth for data/electric connection, arranged to close the induction loop.

20. The process as claimed in claim 13, wherein the garment includes a removable pocket which has required fiber/wire connectors utilized to establish connection between the activator unit and the at least one portable electronic device.

21. The process as claimed in claim 13, wherein the activator unit includes a zipper with conductive teeth for data/power connection utilized to establish electrical connection between the conductive fibers forming the induction loop and to provide an interface to the at least one portable electronic device.

22. The process as claimed in claim 13, wherein the at least one portable electronic device includes a mobile phone, a pager, a personal digital assistant (PDA), a tape cassette player, a compact-disc (CD) player, a MD player, a DAT player, a mini-television set, a radio, a clock/alarm, or some other similar mobile devices.

23. An article of functional clothing comprising:
a garment including a conductive fiber forming an induction loop; and
an activator unit arranged to establish electrical conduction, via the

induction loop, and to serve as an interface between the garment and at least one portable electronic device.

24. The article of functional clothing as claimed in claim 23, wherein the garment and said portable electronic device are in electrical interface utilizing a wireless connection.

25. The article of functional clothing as claimed in claim 23, wherein the electrically conductive fiber includes a metallic material.

26. The article of functional clothing as claimed in claim 25, wherein the metallic material includes at least one of copper, gold, steel, iron, nickel, cobalt, chromium, molybdenum, tungsten, tin, zinc, manganese, thallium, aluminum, and magnesium.

27. A hearing device comprising:
an inductive coil for inductively coupling the hearing device to a garment including a conductive fiber forming an induction loop;
a speaker for conveying a message from at least one portable electronic device to a user of the hearing device; and
an activator unit for establishing a connection between the at least one portable electronic device and the induction loop.